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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/660,096	09/10/2003	Yoshiro Udagawa	1232-5142	5924
27123	7590	04/08/2008	EXAMINER	
MORGAN & FINNEGAN, L.L.P. 3 WORLD FINANCIAL CENTER NEW YORK, NY 10281-2101			LAM, HUNG H	
			ART UNIT	PAPER NUMBER
			2622	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/660,096	Applicant(s) UDAGAWA, YOSHIRO	
	Examiner HUNG H. LAM	Art Unit 2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Specification

2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 101

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

The USPTO "Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility" (Official Gazette notice of 22 November 2005), Annex IV, reads as follows:

Descriptive material can be characterized as either "functional descriptive material" or "nonfunctional descriptive material." In this context, "functional descriptive material" consists of data structures and computer programs which impart functionality when employed as a computer component. (The definition of "data structure" is "a physical or logical relationship among data elements, designed to support specific data manipulation functions." The New IEEE Standard Dictionary of Electrical and Electronics Terms 308 (5th ed. 1993).) "Nonfunctional descriptive material" includes but is not limited to music, literary works and a compilation or mere arrangement of data.

When functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized. Compare *In re Lowry*, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994) (claim to data structure stored on a computer readable medium that increases computer efficiency held statutory) and *Warmerdam*, 33 F.3d at 1360-61, 31 USPQ2d at 1759 (claim to computer having a specific data structure stored in memory held statutory product-by-process claim) with *Warmerdam*, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure per se held nonstatutory).

In contrast, a claimed computer-readable medium encoded with a computer program is a computer element which defines structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program's functionality to be realized, and is thus statutory. See Lowry, 32 F.3d at 1583-84, 32 USPQ2d at 1035.

4. Claims 16 and 18 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter as follows. Claim 16 and 18 define a program embodying functional descriptive material. However, the claim does not define a computer-readable medium or memory and is thus non-statutory for that reason (i.e., "When functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized" – Guidelines Annex IV). That is, the scope of the presently claimed a program can range from paper on which the program is written, to a program simply contemplated and memorized by a person.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1, 3-7, 10-11, 14-15, 18-19 are rejected under 35 U.S.C. 102(e) as being anticipated by Nanjo (US-2004/0,130,653).

With regarding **claim 1**, Nanjo discloses an image sensing apparatus having at least a filter insertion/removal device which inserts and removes an optical filter for reducing a light quantity to an image sensing element serving as an optical system (abstract), comprising:

a signal processing device (Fig. 5; camera processing unit 54 and CPU 55) which performs signal processing so as to generate image data from an image sensing signal output from the image sensing element (image sensor 52; [0093-0095]);

a brightness value calculation device (camera processing unit 54: detection of luminance signal) which calculates a first brightness value representing a brightness of part or all of an object which is imaged on the image sensing element ([0095]);

a brightness value correction device which calculates a second brightness value by correcting the first brightness value on the basis of a light reduction amount generated by inserting the optical filter by the filter insertion/removal device (Fig. 6; [0095-0101]: it is inherent that a second luminance value is detected after diaphragm blades and ND filter are controlled by an amount due to the control feedback camera system 50); and

a control device which controls the signal processing in said signal processing device by using the second brightness value (Fig. 6; [0095-0101]: it is inherent that the second detected luminance value detected from camera signal processing 54 is passed to CPU 55 for continuously controlling ND filter 17 and Diaphragm 2-3).

With regarding **claim 3**, Nanjo discloses an image sensing apparatus having at least a filter insertion/removal device which inserts and removes an optical filter for reducing a light quantity to an image sensing element serving as an optical system (abstract), comprising:

a signal processing device (Fig. 5; camera processing unit 54 and CPU 55) which performs signal processing so as to generate image data from an image sensing signal output from the image sensing element (image sensor 52; [0093-0095]);

a brightness value calculation device (camera processing unit 54: detection of luminance signal) which calculates a first brightness value representing a brightness of part or all of an object which is imaged on the image sensing element ([0095]);

a brightness value correction device which calculates a second brightness value by correcting the first brightness value on the basis of a light reduction amount generated by inserting the optical filter by the filter insertion/removal device (Fig. 6; [0095-0101]: it is inherent that a second luminance value is detected after diaphragm blades and ND filter are controlled by an amount due to the control feedback camera system 50); and

a control device which controls the optical system by using the second brightness value (Fig. 6; [0095-0101]: it is inherent that the second detected luminance value detected from camera signal processing 54 is passed to CPU 55 for continuously controlling ND filter 17 and Diaphragm 2-3).

With regarding **claim 4**, Nanjo discloses the apparatus according to claim 3, wherein said control of the optical system includes control of an exposure value to the image sensing element (Fig. 5; CPU 55 and diaphragm blades 2-3; [0095]).

With regarding **claim 5**, Nanjo discloses the apparatus according to claim 4, wherein the optical system further comprises an aperture device which changes an aperture diameter, and control of the exposure value includes control of the aperture diameter of the aperture device (Fig. 5; CPU 55 and diaphragm blades 2-3; [0089; 0095-0101]).

With regarding **claim 6**, Nanjo discloses the apparatus according to claim 1, wherein the optical filter includes an ND filter (Fig. 5; ND filter 17).

With regarding **claim 7**, Nanjo discloses the apparatus according to claim 1, wherein said brightness value calculation device calculates the first brightness value on the basis of an aperture value determined in accordance with an aperture diameter of an aperture device, a time value determined in accordance with a time during which an object image is formed on the image sensing element, and a sensitivity of the image sensing element (Fig. 5; CPU 55 and diaphragm blades 2-3; [0070-0078; 0089; 0095-0101]).

With regarding **claim 10**, the claim is a method claim of an apparatus claim 3. Therefore, claim 10 is analyzed and rejected as discussed in claim 3.

With regarding **claim 11**, the claim is a method claim of an apparatus claim 4. Therefore, claim 11 is analyzed and rejected as discussed in claim 4.

With regarding **claim 14**, the claim contains the same limitations as claimed in claim 3. Therefore, claim 14 is analyzed and rejected as discussed in claim 3.

With regarding **claim 15**, the claim contains the same limitations as claimed in claim 4. Therefore, claim 15 is analyzed and rejected as discussed in claim 4.

With regarding **claim 18**, the claim contains the same limitations as claimed in claim 3. Therefore, claim 18 is analyzed and rejected as discussed in claim 3.

With regarding **claim 19**, the claim contains the same limitations as claimed in claim 4. Therefore, claim 19 is analyzed and rejected as discussed in claim 4.

7. Claims 1-2, 8-9, 12-13 and 16-17 are rejected under 35 U.S.C. 102(e) as being anticipated by Tanaka (US-7,199,830).

With regarding **claim 1**, Tanaka discloses an image sensing apparatus having at least a filter insertion/removal device which inserts and removes an optical filter for reducing a light quantity to an image sensing element serving as an optical system (abstract), comprising:

a signal processing device (Fig. 6, main controller 6) which performs signal processing so as to generate image data from an image sensing signal output from the image sensing element (image sensor 302; Col. 6, Ln. 15-67);

a brightness value calculation device which calculates a first brightness value representing a brightness of part or all of an object which is imaged on the image sensing element (Fig. 7; step 111; Col. 10, Ln. 55-Col. 11, Ln. 40);

a brightness value correction device which calculates a second brightness value by correcting the first brightness value on the basis of a light reduction amount generated by inserting the optical filter by the filter insertion/removal device (Fig. 7; Col. 10, Ln. 55-Col. 12, Ln. 45: it is inherent that a second luminance value is detected after when step 125 or 121 goes back to step 101); and

a control device which controls the signal processing in said signal processing device by using the second brightness value (Fig. 7; Col. 10, Ln. 55-Col. 12, Ln. 28).

With regarding **claim 2**, Tanaka discloses the apparatus according to claim 1, wherein said control of the signal processing includes control of white balance processing (Figs. 6-7; see step 107 for white balance operation; Col. 10, Ln. 57-67).

With regarding **claim 8**, Tanaka discloses an image sensing method using an image sensing apparatus having at least a filter insertion/removal device which inserts and removes an optical filter for reducing a light quantity to an image sensing element serving as an optical system (abstract), comprising:

a first step of calculating a first brightness value representing a brightness of part or all of an object which is imaged on the image sensing element (Fig. 7; step 111; Col. 10, Ln. 55-Col. 11, Ln. 40);

a second step of calculating a second brightness value by correcting the first brightness value calculated in the first step on the basis of a light reduction amount generated by inserting the optical filter by the filter insertion/removal device (Fig. 7; Col. 10, Ln. 55-Col. 12, Ln. 45: it is inherent that a second luminance value is detected after when step 125 or 121 goes back to step 101); and

a third step of controlling, by using the second brightness value calculated in the second step, signal processing of generating image data from an image sensing signal output from the image sensing element (Fig. 7; Col. 10, Ln. 55-Col. 12, Ln. 28).

With regarding **claim 9**, Tanaka discloses the method according to claim 8, wherein control of the signal processing in the third step includes control of white balance processing (Figs. 6-7; see step 107 for white balance operation; Col. 10, Ln. 57-67).

With regarding **claim 12**, the claim contains the same limitations as claimed in 8.
Therefore, claim 12 is analyzed and rejected as discussed in claim 8.

With regarding **claim 13**, the claim contains the same limitations as claimed in 9.
Therefore, claim 13 is analyzed and rejected as discussed in claim 9.

With regarding **claim 16**, the claim contains the same limitations as claimed in 8.
Therefore, claim 16 is analyzed and rejected as discussed in claim 8.

With regarding **claim 17**, the claim contains the same limitations as claimed in 9.
Therefore, claim 17 is analyzed and rejected as discussed in claim 9.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a) Yanagi (US-5,479,298) discloses an operation of ND filter and aperture device.

b) Tada (US-6,078,442) discloses an ND filter.

c) Tsuda (US-2005/0,225,662) discloses a quantity light adjusting apparatus with ND filter and Iris driver.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to HUNG H. LAM whose telephone number is (571)272-7367. The examiner can normally be reached on Monday - Friday 8AM - 5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, LIN YE can be reached on 571-272-7372. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

HL
03/30/08

/Nhan T. Tran/
Primary Examiner, Art Unit 2622